



PLANT THIS, NOT THAT

NATIVE ALTERNATIVES TO INVASIVE SPECIES IN SC

Over the last 200 years or so, invasive-exotic plants that are non-native species have been introduced into urban and rural forests as ornamental landscape plants, erosion control and support for wildlife habitat.

Though many introduced plants are harmless, a small cohort of these exotics escape the planted environment, leak into our forests and become major invasive problems.

Invasive plants threaten the natural integrity of South Carolina forests as they often out-compete native trees, shrubs and plants for light, space, water and nutrients in their natural communities. Serious invasive plant problems increase maintenance costs for landowners and communities alike and compromise biodiversity.

Plant native trees, shrubs and other plants in South Carolina. If you identify invasive species on your property, take action to remove plants and control their spread. For more information on identifying, managing and controlling invasive-exotic plants, contact Forestry Commission Forest Health Coordinator David Jenkins at djenkins@scfc.gov or David Coyle with the Clemson Invasive Species Program at dcoble@clemson.edu.



Chinese flame tree flowers. (Photo by Karan A. Rawlins, University of Georgia, Bugwood.org)



Chinese flame tree foliage. (Photo by Karan A. Rawlins, University of Georgia, Bugwood.org)



SPECIES TO REMOVE, AVOID PLANTING

Chinese flame tree (*Koelreuteria bipinnata*)

Chinese flame tree is a small-to-medium-sized, upright spreading tree with a flat-topped crown and showy, yellow flowers. Though it has been popularized as one of the few yellow-flowering landscape trees, Chinese flame tree is equally admired for its spectacular fall display of attractive, paper-like, pink fruit capsules, reminiscent of miniature Chinese lanterns. This tree is native to China, grows to a mature size of 25 to 35 feet, and has been planted extensively throughout the south. Like many invasive species, Chinese flame tree grows rapidly and produces copious amounts of seed.

Identification

- The bark of young trees is smooth and light brown, which transitions to ridged and furrowed on mature trees;
- Chinese flame tree leaves are oval-shaped and bi-pinnately compound, meaning each leaf is twice divided into smaller, oval leaflets;
- Leaflets are coarsely toothed or lobed;
- Leaves are large, grow to 20 inches long, are lustrous dark green and are tropical in appearance;
- Tiny, fragrant, canary-yellow flowers bloom in early summer on long, dense panicles (branched flowers);
- Fruits are large clusters of inflated, papery, two-inch-sized capsules resembling Chinese lanterns that turn light pink in the fall and winter.

Interesting facts

- Chinese flame tree has a long lifespan and can live 50 to 150 years;
- Chinese flame tree is sometimes mistaken for golden raintree (*Koelreuteria paniculata*), as the two trees are similar in appearance. The key characteristic that differentiates these two lookalikes is the twice-compound leaves of Chinese flame tree;
- Dried fruits have been popularly used in decorative flower arrangements.



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NATIVE ALTERNATIVE TO CHINESE FLAME TREE

American smoktree (*Cotinus obovata*)

American smoktree is a small, upright, multi-trunked tree or large shrub with a spreading crown and oval-round form. This native matures to a height of 15 to 30 feet and is admired for its magnificent floral display featuring dense flower clusters and attractive red-purple, hairlike flower stalks (petioles) that create a smoky appearance. Smoktree's aesthetically pleasing flowering, combined with its distinctively orange-yellow heartwood, make this tree an exceptionally unique and beautiful landscape specimen. Smoktree is adaptable to various sites; however, it does not tolerate wet soils. Plant this beauty in full sun for best performance, but it will also grow in partial shade. This tough tree fares well in soil compaction and the tough, polluted urban environment. Smoktree is considered drought- and wind-tolerant and is disease-resistant. Female and male plants are separate.

Identification

- American smoktree has smooth, blue-green, oval-shaped leaves;
- Dense, spring flower clusters create an impressive, light pink smoky show;
- Smoktree boasts a spectacular show of fall color that includes brilliant shades of yellow, orange, red and reddish-purple;
- Tiny light-pink flowers are organized in dense clusters on 10-inch-long panicles that coalesce with reddish-purple billowy, hairlike stalks, to create a smoky-pink haze;
- Berries are produced on pinkish stems that later dry out into small, dark seeds;
- Smoktree's snarled branches and fish-scaled bark pattern provide winter interest in the landscape;
- Male and female trees are separate, and female trees bear flowers, fruit and seed.



American smoktree foliage. (Photo by John Ruter, University of Georgia, Bugwood.org)



American smoktree flowers. (Photo by Karan A. Rawlins, University of Georgia, Bugwood.org)

Interesting facts

- Smoktree gets its common name from the colorful billowy hairs attached to elongated stalks on the spent flower clusters. These hairs turn a smoky pink to purplish pink in summer and cover the entire tree with fluffy, hazy, smoke-like puffs;
- When compared to female plants, American smoktree male trees have larger, showier flower clusters;
- American smoktree's magnificent fall color is touted by many as the best, most intense fall color displays of all North American native trees;
- Smoktree's color display can last up to a month.
- The tiny seeds of female smoktrees ripen after flowering and are a favored delicacy of finches;
- Smoktree's deep, orange-yellow heartwood has been used for making orange and yellow dyes, especially around the Civil War. In fact, this species was harvested for dye almost to the point of elimination;
- American smoktree typically lives for at least 60 years;
- This tree has fish-scale patterned bark that adds an interesting dimension to the landscape;
- Smoktree provides good cover for nesting birds and small mammals and attracts butterflies and bees.